

In Review



BIOMEDICAL ENGINEERING

Mighty Membrane

PUMP IT UP: A composite photograph highlights a super-thin silicon membrane that could one day lead to diagnostic devices the size of credit cards. Part of research in the lab of James McGrath, associate professor of biomedical engineering, the project demonstrates a new version of an electroosmotic pump—a device in which fluids move through porous media in the presence of an electric field. The Rochester researchers were able to reduce the required electrical voltage from 10 kilovolts in a typical pump to about one-quarter volt, demonstrating a potential way to drastically reduce the size of future devices. **PHOTOGRAPHY BY ADAM FENSTER**

